

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A brake fluid pressure control device, comprising device
comprising:

a controller;

a fluid pressure control unit that operates in accordance with a control signal supplied from the controller and having a plurality of fluid pressure control valves capable of controlling fluid pressures in a plurality of brakes to inhibit rotation of a plurality of wheels;

a plurality of signal lines that connect the fluid pressure control valves to the controller; wherein:

the plurality of signal lines are divided into a plurality of signal line groups;

the signal lines of a first one of the signal line groups are connected between the controller and the fluid pressure control unit by a first ~~physical~~ connector, and the signal lines of a second one of the signal line groups are connected between the controller and the fluid pressure control unit by a second ~~physical~~ connector; and

the controller is directly connected to, at least, the first ~~physical~~ connector and the second ~~physical~~ connector for connecting the plurality of signal lines divided into a plurality of signal line groups, such that the controller outputs the signal lines of the first one of the signal line groups independently from the signal lines of the second one of the signal line ~~groups~~groups,

wherein the fluid pressure control unit includes a first linear valve device including at least one of the plurality of fluid pressure control valves, and a second linear valve device including the rest of the plurality of fluid pressure control valves, and

if one of a first control system including the first connector and the first linear valve device, and a second control system including the second connector and the second linear valve device falls into an abnormal condition, at least one of the brakes is controlled via the connector of one of the first and second control systems which does not fall into the abnormal condition, rather than the connector of the other of the first and second control systems which falls into the abnormal condition.

2. (Original) The brake fluid pressure control device according to claim 1, wherein:

the brakes are respectively provided in a front-left wheel, a front-right wheel, a rear-left wheel and a rear-right wheel; and

the brakes are divided such that (a) one or more signal lines connected to one or more fluid pressure control valves corresponding to the brakes provided in the front-left wheel and the rear-right wheel are included in the first one of the signal line groups, and (b) one or more signal lines connected to one or more fluid pressure control valves corresponding to the brakes provided in the front-right wheel and the rear-left wheel are included in the second one of the signal line groups.

3. (Original) The brake fluid pressure control device according to claim 2, wherein:

the fluid pressure control unit includes:

a connecting passage connecting at least (a) a brake cylinder for the front-left wheel to a brake cylinder for the front-right wheel or (b) a brake cylinder for the rear-left wheel to a brake cylinder for the rear-right wheel; and

a communication state control valve provided in the connecting passage and switched in accordance with a control signal supplied from the controller between a communication state in which two of the brake cylinders communicate with each other, and a shut-off state in which the two brake cylinders do not communicate with each other.

4. (Original) The brake fluid pressure control device according to claim 1, wherein:

the brakes are respectively provided in a front-left wheel, a front-right wheel, a rear-left wheel and a rear-right wheel; and

the brakes are divided such that (a) one or more signal lines connected to one or more fluid pressure control valves corresponding to the brakes provided in the front-left wheel and the front-right wheel are included in the first one of the signal line groups, and (b) one or more signal lines connected to one or more fluid pressure control valves corresponding to the brakes provided in the rear-left wheel and the rear-right wheel are included in the second one of the signal line groups.

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5. (Original) The brake fluid pressure control device according to claim 1, further comprising:

a pressurizing device that pressurizes operating fluid by a motive power, wherein:

the fluid pressure control valves control fluid pressures in the brakes based on a fluid pressure in the pressurizing device.

6. (Original) The brake fluid pressure control device according to claim 5, wherein:

the pressurizing device is a pump device including a pump pressurizing and discharging operating fluid and a pump motor driving a pump by a driving force generated by electric energy; and

the fluid pressure control valves control fluid pressures in the brakes based on a fluid pressure in the pump device.

7. (Original) The brake fluid pressure control device according to claim 1, further comprising:

a pump device that includes a pump pressurizing operating fluid and a pump motor operating a pump by a driving force generated by electric energy; and

an operation state detector that detects a fluid pressure in a fluid pressure source that generates a fluid pressure corresponding to an operation force of a brake actuating member, wherein:

the fluid pressure control valves are control valves capable of controlling fluid pressures in the brakes based on a fluid pressure in the pump device; and

the controller outputs a control signal to the fluid pressure control valves based on a fluid pressure detected by the operation state detector.

8. (Original) The brake fluid pressure control device according to claim 7, wherein:

the brakes include front-wheel-side brakes and rear-wheel-side brakes;

the pump device and the fluid pressure source are connected to brake cylinders for the front-wheel-side brakes;

the fluid pressure source is not connected to brake cylinders for the rear-wheel-side brakes; and

the pump device is connected to the brake cylinders for the rear-wheel-side brakes.

9. (Original) The brake fluid pressure control device according to claim 8, wherein:

the fluid pressure control valves include pressure-increasing control valves provided between the brake cylinders of the brakes and the pump device, and pressure-reducing control valves provided between the brake cylinders and a low-pressure source;

the pressure-reducing control valve provided on the side of the front wheels is normally closed; and

the pressure-reducing control valve provided on the side of the rear wheels is normally closed.

10. (Currently Amended) A brake fluid pressure control ~~device, comprising device~~
comprising:

a plurality of operation state detectors that detect an operation state of a brake
actuating member and output a detection signal;

a controller that controls fluid pressures in a plurality of brakes based on at
least one of a plurality of values detected by the operation state detectors;

a plurality of signal lines that connect the operation state detectors to the
controller; wherein:

the signal lines are divided into a plurality of signal line groups;

the signal lines of a first one of the signal line groups are connected between
the controller and some of the operation state detectors by a first ~~physical~~ connector, and the
signal lines of a second one of the signal line groups are connected between the controller and
others of the operation state detectors by a second ~~physical~~ connector; and

the controller is directly connected to, at least, the first ~~physical~~ connector and
the second ~~physical~~ connector for connecting the plurality of signal lines divided into a
plurality of signal line groups, such that the controller outputs the signal lines of the first one
of the signal line groups independently from the signal lines of the second one of the signal
line ~~groups~~groups.

wherein the plurality of operation state detectors are divided into a first detector group
and a second detector group.

wherein if one of a first unit including the first connector, the first signal line group
and the first detector group, and a second unit including the second connector, the second
signal line group and the second detector group falls into an abnormal condition, at least one
of the brakes is controlled via the connector of one of the first and second units which does

not fall into the abnormal condition, rather than the connector of the other of the first and second units which falls into the abnormal condition.

11. (Original) The brake fluid pressure control device according to claim 10, wherein:

the operation state detectors are sensors that output a detected value corresponding to an operation stroke of the brake actuating member.

12-25. (Withdrawn)

26. (Currently Amended) A brake fluid pressure control ~~device comprising device,~~
comprising:

a controller;

a fluid pressure control unit that operates in accordance with a control signal supplied from the controller and having a plurality of fluid pressure control valves capable of controlling fluid pressures in a plurality of brakes to inhibit rotation of a plurality of wheels, the brakes being provided in a front-left wheel, a front-right wheel, a rear-left wheel and a rear-right wheel; and

a plurality of signal lines that connect the fluid pressure control valves to the controller, wherein the plurality of signal lines are divided into a plurality of signal line groups and the signal lines of a first signal line group are connected between the controller and the fluid pressure control unit by a first ~~physical~~ connector, and the signal lines of a second signal line group are connected between the controller and the fluid pressure control unit by a second ~~physical~~ connector and the brakes are divided such that at least one signal line connected to at least one fluid pressure control valve ~~correspond~~ corresponds to the brakes provided in diagonally located wheels, and a first fluid passage connects the fluid pressure control valves corresponding to a front-left brake and a front-right brake, and a

second fluid passage connects the fluid pressure control valves corresponding to a rear-left brake and a rear-right ~~brake-brake~~.

wherein the fluid pressure control unit includes a first linear valve device including at least one of the plurality of fluid pressure control valves, and a second linear valve device including the rest of the plurality of fluid pressure control valves, and

if one of a first control system including the first connector and the first linear valve device, and a second control system including the second connector and the second linear valve device falls into an abnormal condition, at least one of the brakes is controlled via the connector of one of the first and second control systems which does not fall into the abnormal condition, rather than the connector of the other of the first and second control systems which falls into the abnormal condition.

27. (New) A brake fluid pressure control device, comprising:

a controller;

a fluid pressure control unit that operates in accordance with a control signal supplied from the controller and having a plurality of fluid pressure control valves capable of controlling fluid pressures in a plurality of brakes to inhibit rotation of a plurality of wheels;

a plurality of signal lines that connect the fluid pressure control valves to the controller; wherein:

the plurality of signal lines are divided into a plurality of signal line groups;

the signal lines of a first one of the signal line groups are connected between the controller and the fluid pressure control unit by a first connector, and the signal lines of a second one of the signal line groups are connected between the controller and the fluid pressure control unit by a second connector; and

the controller is directly connected to, at least, the first connector and the second connector for connecting the plurality of signal lines divided into a plurality of signal

line groups, such that the controller outputs the signal lines of the first one of the signal line groups independently from the signal lines of the second one of the signal line groups, and

wherein the first and second connectors exist in isolation from each other such that even if one of the connectors falls into an abnormally connected condition, the other of the first and second connectors does not fall into an abnormally connected condition.

28. (New) A brake fluid pressure control device, comprising:

a plurality of operation state detectors that detect an operation state of a brake actuating member and output a detection signal;

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a controller that controls fluid pressures in a plurality of brakes based on at least one of a plurality of values detected by the operation state detectors;

a plurality of signal lines that connect the operation state detectors to the controller; wherein:

the signal lines are divided into a plurality of signal line groups;

the signal lines of a first one of the signal line groups are connected between the controller and some of the operation state detectors by a first connector, and the signal lines of a second one of the signal line groups are connected between the controller and others of the operation state detectors by a second connector; and

the controller is directly connected to, at least, the first connector and the second connector for connecting the plurality of signal lines divided into a plurality of signal line groups, such that the controller outputs the signal lines of the first one of the signal line groups independently from the signal lines of the second one of the signal line groups,

wherein the first and second connectors exist in isolation from each other such that even if one of the connectors falls into an abnormally connected condition, the other of the first and second connectors does not fall into an abnormally connected condition.

29. (New) A brake fluid pressure control device, comprising:

a controller;

a fluid pressure control unit that operates in accordance with a control signal supplied from the controller and having a plurality of fluid pressure control valves capable of controlling fluid pressures in a plurality of brakes to inhibit rotation of a plurality of wheels, the brakes being provided in a front-left wheel, a front-right wheel, a rear-left wheel and a rear-right wheel; and

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a plurality of signal lines that connect the fluid pressure control valves to the controller, wherein the plurality of signal lines are divided into a plurality of signal line groups and the signal lines of a first signal line group are connected between the controller and the fluid pressure control unit by a first connector, and the signal lines of a second signal line group are connected between the controller and the fluid pressure control unit by a second connector and the brakes are divided such that at least one signal line connected to at least one fluid pressure control valve corresponds to the brakes provided in diagonally located wheels, and a first fluid passage connects the fluid pressure control valves corresponding to a front-left brake and a front-right brake, and a second fluid passage connects the fluid pressure control valves corresponding to a rear-left brake and a rear-right brake, and

wherein the first and second connectors exist in isolation from each other such that even if one of the connectors falls into an abnormally connected condition, the other of the first and second connectors does not fall into an abnormally connected condition.
